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Play and children with autism: insights from research and implications for practice.

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Abstract: Children with autism approach play in a different way to that of their non-autistic peers as evidenced by studies from infancy to childhood. Cognitive theories have been mainly used as a framework to explain play in autism and socio-emotional theories have been so far neglected. This chapter argues the case that socio-emotional theories offer a new framework for explaining the different ways children with autism approach play and the implications that this might have for enhancing their play. This approach is of particular relevance to enhancing play in children with autism and additional intellectual disabilities, and a number of relevant current interventions positioned in the socio-emotional framework of understanding childhood and autism are reviewed to identify implications for practice mainly for school settings.

Keywords: autism, intellectual disabilities, children, play, symbolic play, social interaction, parents, teachers, play interventions, schools

Nowadays, play is considered an integral part of childhood and the education of children. It is not just a spontaneous activity and occupation, but it also plays a central role in the child's developmental trajectory, as it contributes to the cognitive, emotional, social, motor, and language development, the development of literacy, creative arts and learning (Smith, 2009). The role of play in children's development has been highlighted in the theoretical approaches towards human development, and has been generally described as a reflection and a driving force of cognitive, social, and emotional development.

Based on Piaget's cognitive theory (1951), play is approached as a sequence, which starts with the simple handling of objects during the first year of life, continues with functional play from the first until the second year, and symbolic play starts emerging around the second year. According to Vygotsky's socio-cultural theory, play is the source of development and it is created in the 'zone of

proximal development', which is the functional space between what the child can do on his/her own and what the child can do with assistance. Every psychological function, including play, appears "... first, between people (interpsychological), and then inside the child (intrapsychological)." (Vygotsky, 1978, p. 57). This approach underscores the predominant role of play in development, as well as the role of interaction in the expression of play. Furthermore, within the theoretical framework of our understanding of the world and our actions as having a communicative and emotional rather than cognitive basis, the emergence of play is placed in the early communication between infant and mother, which, for the child, constitutes the primary form of social interaction. Trevarthen, Aitken, Papoudi and Robarts (1998) argue that infants, before they even begin to curiously explore the world of objects, possess the ability to recognize and engage their attention in an activity with another person, namely the mother, and, while playing, interact with this person through expressive forms, rhythmical behavioural patterns, and complex emotions. In other words, infant and mother, through the exchange of eye contact, sounds, movements and facial expressions, jointly participate in play and express their intentions, as well as the mental state they are in, to each other. However, it is widely documented that infants and children with autism have difficulties in engaging in face-to-face interaction and in spontaneous interactive play with their mothers (Mundy, Sigman, Ungerer, & Sherman 1986; Mundy, Sigman, Ungerer, & Sherman, 1987) and their peers (Wolfberg & Schuler, 1993), and therefore the origins of the difficulties children with autism have in play can be associated with the fundamental difficulties in the development of communication, social interaction and symbolic thinking (Papoudi, 1993; Papoudi, 2015; Trevarthen et al., 1998).

Play and children with autism

Autism is a developmental condition presenting wide variation in both the range and the variability of the observed behaviours. Autism as a condition manifests, in its typical form, as "autism", but also as a wider spectrum, and the term "autism spectrum" is often used to encompass all the forms of behavioral

manifestations of the condition. Kanner (1943) described first autism and noted that children with autism come to the world with an innate inability to form affective contact with other people but also that children with autism do not have intellectual disabilities. Later, Asperger (1944) described a group of children with high cognitive abilities as having similar behavioural characteristics with the autistic children and Wing and Gould (1979) used the term autism spectrum to include children with different behavioural characteristics of autism and subsequently different levels of intellectual functioning. However, a high proportion of children with autism are reported to have additional intellectual disabilities. There is no consensus regarding the percentage of individuals with autism and additional intellectual disabilities. One of the first relevant studies gave a 75% comorbidity (Rutter & Lockyer, 1967) while later studies provided considerably lower but variable percentages ranging from 26% (Chakrabarti & Fombonne, 2001) to 40% (Baird et al., 2000). A more recent review of 10 empirical studies by Emerson and Baines (2010) gave a very wide range of prevalence rates of intellectual disabilities among children with autism from 15% (Williams, 2008) to 84% (Magnusson 2001 both cited in Emerson & Baines, 2010). Even fewer studies reported the severity of intellectual disabilities among populations with autism. Fombonne (1999), for example, found that across all the studies he reviewed 29% of the sample had mild to moderate intellectual disabilities and 42% had severe to profound intellectual disabilities. The Intellectual Quotient (IQ) of individuals with intellectual disabilities is below 70 (cut off for mild intellectual disabilities for Holland, 2011) and as defined by the Department of Health (DoH) in England (2001) these individuals have difficulties in understanding new or complex information and learning new skills. Therefore, the play observed in children with autism is very diverse and this variability to an extent is related to the range of intellectual disabilities found within this population.

As autism is manifested in early childhood, a major developmental milestone of early childhood lacking in autism is the playful, creative and imaginative interactions between children and their parents, their siblings and their peers. Over the last 20 years, a series of studies has provided ample

evidence towards understanding the socio-communicative difficulties in children with autism, with a particular emphasis on two major developmental milestones: a) joint attention, which reflects the difficulty children with autism encounter in sharing attention between adults and objects, and b) the use of symbols, which refers to the child's difficulty to learn conventional or common meanings for symbols, such as gestures, mimicry, words, and play (Wetherby, 2006). It is well documented in the literature that children with autism encounter serious difficulties in joint attention and in engaging in spontaneous, socially acceptable play, as well as participating in dyadic play, and later, peer play. These difficulties are inseparably connected with the nature of autism, since the main characteristics of the condition include difficulties in social interaction, communication, and symbolic thought.

These difficulties are reflected in the most recent edition (DSM-V, 2013) of the Diagnostic and Statistical Manual of Mental Disorders as well as it is previous edition (DSM-IV, 1994). According to the DSM-IV (1994), on the basis of which the majority of published studies have selected their sample, the diagnostic criteria for autism include qualitative significant difficulties in social interaction, in communication, restricted, repetitive and stereotyped patterns of behavior, interests, and activities, as well as delay or significant difficulties in at least one of the following areas, with onset prior to three years of age: a) social interaction, b) language as used in social communication, and c) symbolic or imaginative play. Difficulties in social interaction may manifest as absence or limited use of non-verbal behaviors (e.g. eye-to-eye gaze, facial expression, body posture, and gestures to regulate social interaction), or as failure to develop peer relationships appropriate to developmental level, a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people, and a lack of social or emotional reciprocity. Difficulties in communication may manifest as delays in, or total lack of, the development of spoken language or, in individuals with adequate speech, a marked difficulty in the ability to initiate or sustain a conversation with others, as well as the stereotyped and repetitive use of language or idiosyncratic language, and the lack of varied, spontaneous make-believe play or social imitative play appropriate to the child's developmental level. Lastly, the restricted, repetitive and

stereotyped patterns of behavior, interests and activities, may manifest as preoccupation with one or more stereotyped and restricted patterns of interest, as inflexible adherence to specific, non-functional routines or rituals, or as stereotyped and repetitive motor mannerisms (e.g hand or finger flapping or twisting, or complex whole-body movements), as well as the persistent preoccupation with parts of objects. In DSM-V (2013) deficits in social communication and social interaction across multiple contexts remain crucial for the diagnosis of autism with significant difficulties in developing, maintaining and understanding relationships ranging from difficulties in sharing imaginative play or in making friends to absence of interest in peers. The existence of additional intellectual disabilities magnifies as expected the severity of the aforementioned difficulties.

The following descriptions provided by a mother of a child of autism and intellectual disabilities demonstrate these difficulties in the way children with autism play, and demonstrate how difficulties in communication, symbolic thought, and behavior are entangled in the form of their play.

The early years

From an early age he was interested in geometric shape matching puzzles. However, whilst his twin brother would fit the pieces into place using a trial and error approach, Johnny would hold each piece in the air, examine it closely and then fit it into the correct place. He also enjoyed moving his body or watching objects or other children move.

From 2 years' old

It was not until after Johnny's second birthday that I began to notice obvious differences in the way that he played and interacted with other children. These observations eventually led to his diagnosis. One of my first recollections was that whenever I took him somewhere new, perhaps to visit friends or family, he would walk up and down the fence line of the garden. I also recall his lack of interest in other children of the same age; whilst all the other children played and interacted with each other,

Johnny was on his own at the far end of the garden.

Post diagnosis

Johnny received his diagnosis just before his 3rd birthday. Around this time, some of his earlier playing, such as matching puzzles seemed to regress. He was finding it increasingly difficult to cope with the environment. He began to engage in safe repetitive activities. For example, watching small sections of DVD's and replaying them. He also enjoyed pushing the discs in and out of the DVD player and putting the discs in and out of their cases.

Instead of appearing ambivalent, he was starting to find having other children to visit our house to be too sensory overloading and stressful. He would often position objects in places in the garden, probably as a coping mechanism. When other children tried to move them he would get very distressed and he would quickly reposition them again.

When he became a little older, I began to observe him wanting to play with other children, but he didn't really know how to play. He would often stand on the edge of a group of children playing, watching excitedly and jumping up and down. At home he started to engage more with his toys. He liked to play with the train set, pushing the trains around the track. However, his play was purely functional and seemed to lack imagination. For instance, if I set up a basic train attached to a carriage, he was unlikely to add other carriages to the train or want to add extra track.

The above narrative of Johnny's case is an illustrative example of how the play of children with autism is described in the existing literature, i.e. that children with autism usually play alone, avoid playing with others, and repeat the same form of play in an inflexible and stereotyped manner. Other characteristics of the play of children with autism include excessive preoccupation with certain toys and an interest in a very limited number of toys. Children with autism are not very likely to develop symbolic play, or they may do so only to a limited extent and after instruction (Kasari, Chang, &

Patterson, 2013). A typical characteristic of their play seems to be that they are fascinated by the appearance of objects, their immediate sensory characteristics, or the opportunities they might offer for simple manipulation, while they remain indifferent to the cultural or symbolic meaning the objects may carry.

Research has shown that children with autism have the ability to explore and use objects functionally, but exhibit serious difficulties in acquiring spontaneous symbolic and pretend play during their pre-school and school years. The thematic content of the play of children with autism is characterized by a lack of coherence and creativity, and by repetitiveness to the point of ritual (Papoudi, 1993), and they are usually rejected by the group of their peers, since they have not developed the skills that would allow them to participate as equal playmates (Papoudi, 2008; Argyropoulou & Papoudi, 2012). There is also evidence that in relation to symbolic and pretend play, limitations in creative, playful pretend play among children with autism is related to their restricted interpersonal communication and engagement (Hobson et al., 2013).

Although there is quite extensive literature on play skills of children with autism, there seems to be limited research on how children with autism and additional intellectual disabilities play. It is known mostly from teachers' and parents' accounts that the play of these children is usually solitary, stereotypical and self-stimulatory (Jordan, 2001). According to these accounts, children with autism and intellectual disabilities tend to play by themselves engaging in the same play routines while their usual stimulatory play includes flicking or spinning objects (visual), tapping and clicking (auditory), licking (taste), feeling different textures (tactile), spinning themselves, climbing and balancing (vestibular) and getting odd body postures (proprioceptive).

Play in children with autism has been studied in relation with other developmental milestones, such as language development, attachment, and joint attention. It has been found that in children with autism who have developed understanding and production of speech, as well as in children with secure attachment, functional and symbolic play occur more often and at a higher level. There is also evidence

that the use of joint attention is connected to the ability for symbolic play in children with autism (Kasari, Huynh, & Gulsrud, 2011). As regards younger children with autism, what we know so far is that toddlers with autism at 20 months exhibit functional play and pretend play at the same level as infants with developmental delay and their performance in pretend play is at a lower level only compared to that of typical toddlers of the same age (Charman et al., 1997).

Literature has evidenced the supportive role of technology in scaffolding play skills in children with autism. Technology tends to be very popular among individuals with autism because it seems to offer structure, visual supports, control over the environment and opportunities for repetition. There are a number of relevant studies on the use of video-modeling and robots as well as on various technology media to teach pretend play skills in children with autism. However, it has to be noted that despite their significant number, studies focusing on technology mediated interventions to teach play skills in children with autism are considerably fewer than studies focusing on skills pertaining to the core difficulties seen in autism (e.g. social skills, communication) and academic skills. Video modeling has been widely used for many years to teach children with autism play skills such as toy-related conversational skills (Taylor, Levin, & Jasper, 1999), social initiation and toy play (Nikopoulos & Keenan, 2004), appropriate verbal and motor play (Paterson & Arco, 2007), play dialogues (Murdock, Ganz, & Crittendon, 2013) and verbal compliments given to peers during group play (Macpherson, Charlop, & Miltenberger, 2015). Furthermore, robots have been extensively used recently in research on teaching play skills in children with autism. For example, they have been used to encourage collaborative play during Lego therapy sessions (Barakova et al., 2015; Huskens et al., 2015) and to improve social behaviors in playing with peers (Wainer et al., 2014). Special attention has been placed on teaching specifically pretend play skills via the use of technology. More specifically Bai, Blackwell, and Coulouris (2013) evaluated an Augmented Reality system and Hererra et al. (2008) explored the impact of Virtual Reality both on teaching pretend play. The two studies found that pretend play increased in frequency and duration and there was also some degree of generalisation of the learnt skill.

In a similar vein, François, Powell & Dautenhahn (2009) found that the use of a robot in a child led play therapy format can also improve the pretend play of children with autism.

In relation to the play of children with autism, this has been mainly been studied within the framework of the cognitive approach in child development (Baron-Cohen, 1987), and research has been carried out in relation with the emergence and the qualitative characteristics of sensorimotor, functional, and symbolic or pretend play. The development of play in infants and young children with autism, and, most importantly, the social, interpersonal, and emotional dimension of play have hardly been studied (Papoudi, 2015).

Play and social interaction as a vehicle of development and education in children with autism

Children with autism encounter special difficulties in developing play, an activity which is particularly important for children's development and education. With this in mind, studies have been conducted and psychoeducational programs have been designed, aimed at teaching and promoting play in children with autism. Studies based on the principles of Applied Behaviour Analysis (ABA) have shown that children with autism can be taught to achieve basic acts of play through games and their functional use (Kasari, Chang, & Patterson, 2013). However, an important question is to what extent this indeed constitutes play, given that flexibility, creativity and fun are not often observed (Wolfberg & Schuler, 2006; Kasari, Huynh, & Gulsurd, 2011). Any intervention aiming to unfold play should stem from the child's developmental level, the play of the children themselves, and their individual needs, instead of being based on a predesigned program. To this end, interactive play (Seach, 2007) and peer play (Wolfberg & Schuler, 2006) can enable children with autism to fulfill their potential and be included in the school environment. Argyropoulou and Papoudi (2012) applied the principles of intensive interaction and interactive play as an educational approach in a case study of a boy with autism, to evaluate its effectiveness in the improvement of his interaction with a pupil in the same nursery. The results showed that there was a significant increase in the social transactions between the boy and his

peer, and that this approach provided evidence of inclusive practice, as contributing to the increase in the social transactions between the two peers, as well as to a change in the behavior of the rest of the children towards the autistic boy, who up until that point had been excluded from their peer group. Research has shown that children with autism are more involved in play activities when an adult or peer participates in the play and when the play corresponds to their development level (Kasari, Huynh, & Gulsurd, 2011). Children with autism, through social interaction, interactive play, and peer play, learn how to play and how to create positive relationships, and, as a result, become less isolated, by playing as equal members of a group. It is interaction and connectedness with others that generate developmental benefits in communication, in reciprocity during social transactions, in imagination and thought flexibility, in the strengthening of the relationship between parents, educators and children, as well as among the children themselves.

These notions on the role and the importance of social interaction in the development of children with autism, and specifically in the development of play, have become the core of psychoeducational models, and their effectiveness has been investigated in relevant research. For example, to encourage interactive play between parents and children, Wieder and Greenspan (2003) suggested the Floor Time approach, in which the adult follows the child's initiatives and uses words, gestures, and emotional expressions in order to elicit ever more complex communicative transactions. In addition, Rogers (2005) and her associates introduced the Denver Model as a developmental intervention model which focuses on: a) the development of inter-personal, constructive, and symbolic play, b) the establishment of relationships characterized by positive affect, reciprocity, and imitation, and c) the development of speech. In developmental interventions the adults/therapists are expected to follow the child's lead, interpret all their communicative attempts as communicative and organize the environment in a way to instigate initiations from the child while learning is achieved through strong affect-laden relationships (Ingersoll, Dvortcsak, Whalen, & Sikora, 2005). Wolfberg (2003), shifting the focus away from the role of adults to that of peers, designed the Integrated Play Groups model to

encourage the play of children with autism in social peer groups. In one of her studies (Wolfberg & Schuler, 1993), she describes a multi-faceted model for promoting peer play in three children with autism, including a support/instruction system for peer play. In specially designed play areas offering opportunities for construction and socio-dramatic role-play, peers functioned as partners in the play of children with autism, based on a series of sessions with opening and closing rituals.

Furthermore, there are a number of studies investigating the impact of interventions based on developmental and behavioural strategies to teach play skills in children with autism. According to behavioural strategies new skills should be taught in an environment where the antecedent stimuli are clear and systematic reinforcement should follow a correct response (Cooper, Heron, & Heward, 2007). For example, Ingersoll and Gergans (2007) explored the impact of Reciprocal Imitation Training on spontaneous imitation skills employing three mothers and their young children with autism and intellectual disabilities. The goal of the training was to teach children with imitation through play by keeping a balance between modeling actions and following the child's lead (Ingersoll & Schreibman, 2006). Kasari and her associates (2015) explored the effectiveness of a parent-mediated intervention on play skills of children with autism focusing on joint engagement, joint attention and play skills and found an increase in children's play diversity and higher play level.

Although such practices have been generally shown to have positive results, i.e. improvement in interpersonal communication, play, and language development, it remains necessary that they are applied to a larger number of children with autism and to corresponding control groups, in order to confirm their effectiveness and examine these outcomes in relation to learning.

Implications for educational practice

The role of play in the education of children with autism, let alone when autism co-exists with intellectual disabilities, across the school years has been neglected. There has been a great need to train teachers in teaching play skills to children with autism (Wong & Kasari, 2012). Play is essential in the

preschool educational settings and it is also fundamental in the curriculum of the early years education but it should be further supported beyond this, as play can be a vehicle for learning in all ages and across the lifespan. Imray and Hinchcliffe (2014) claim that play should be taught every day both in and out of the classroom going far beyond the designated limited play time at school involving the teaching of literacy and numeracy (Imray & Hadfield, 2017). It is very encouraging that recently there are curricula for children with intellectual disabilities in the UK which either have play at the heart of any type of learning such as emotional, social, communicative and cognitive (Fountaindale School, 2015a; Fountaindale School, 2015b) or target play as a separate area of development (Imray & Hadfield, 2017). The role of schools is crucial as it is the school's responsibility to provide breadth of choice and depth of experience in terms of play and forge strong partnership with parents and carers (Imray & Hadfield, 2017) to ensure consistency of approaches and generalisation of the skills.

A recent review of play interventions for children with autism at school by Kossyvaki and Papoudi (2016) showed that a number of studies exploring ways of teaching play skills in children with autism has been conducted at school and have reported effective results, but these targeted children up to the age of 12 years old. Moreover, only 45% (i.e. 37 out of 82) of the pupils recruited in the primary studies had an additional diagnosis of intellectual disabilities. Some studies employed participants with intellectual disabilities and only 2 out of the total 14 (including 7 children) used purely developmental interventions to teach play and another 3 studies (including 29 children) used at least partially developmental methods. Therefore, it seems that developmental approaches are not often used to teach play skills in children with autism and intellectual disabilities at school.

As this chapter has shown so far, although it is not impossible, teaching basic play skills in individuals with autism and intellectual disabilities can be a challenging task. Children seem to naturally develop play skills, without much effort from their 'guiders' who are often adults or more experienced peers (Imray & Orr, 2015), whereas children with autism and those with intellectual disabilities require different approaches to be taught (Jordan, 2001; Imray & Hinchcliffe, 2014). For

example, when taught in a structured developmental way they might be able to develop even more advanced types of play such as pretend play (Jordan, 2001; Sherratt & Peter, 2002) and therefore the role of adults is crucial in supporting these children to reach their full potential (Sherratt & Peter, 2002).

One element of supporting children with autism and those with autism and intellectual disabilities to develop play skills might be to teach the mechanics of play (e.g. how to push a car into the garage, dress and undress a doll), but it is also and even more to create an intrinsic pleasure of engaging in play activities as the existence of fun and excitement is a precondition for play (Sherratt, 1999). Children with autism show a huge diversity in their communication and social interaction skills, and although some children with autism might be desperate to make friends and play, other children may prefer to spend more time on their own. For example, Ross Blackburn (2011), a woman with autism, admits that she used to kick other children when she was at school as kicking made them go away. She also claims that individuals with autism who do not like social interactions might be asked to play with others during break time at school and this demands a lot of effort but it might not be fair as they end up not getting a break this way.

When teaching play skills, especially in educational settings, the child's current play skills should be assessed and any progress has to be evidenced. There are assessment tools for play which are relevant for children with autism and intellectual disabilities such as the Questionnaire for Play Observation by Beyer and Gammeltoft (1998) and the Social Play Record by White (2010) and these can be used as a starting point since professionals and parents can develop their own to better fit their children's needs. Sherratt and Peter (2002) recommend that teachers should be aware of the different developmental stages of play and support the child to move from ritualistic to spontaneous forms of play, from solitary play to social play and from sensorimotor to functional play. Furthermore, the play environment needs to be organised so destructions are reduced to a minimum and guidance is offered via simple visual cues about the rules, the length of the game, and turn-taking within play activities.

Following a simple narrative structure (e.g. favourite fairy tale or video) appropriate to the child's developmental level and involve their interests can also be very effective. The use of technology should be also strongly considered due to its high presence in educational settings, the popularity of technology among individuals with autism and the positive research findings on its effectiveness in teaching a broad spectrum of skills, including play skills.

Adults have a very crucial and also complex role to play in the development of play skills in children with autism. Dockett and Fleer (1999, cited in Phillips & Beavan, 2012) argue that adults can have both direct and indirect involvement in children's play and can take on a number of roles the most important being the following three: i) the manager (e.g. managing time, space and resources, doing the assessment and record keeping), ii) the facilitator (e.g. interpreting play) and iii) the player (e.g. engaging in parallel play or modeling how equipment can be used and extending the child's play skills). This role could be enhanced by adopting some of the principles initially developed to promote spontaneous communication in young children with autism and intellectual disabilities (Adult Interactive Style Intervention-AISI, Kossyvaki, 2013; Kossyvaki, in press). Other relevant interventions such as Interactive Play (Seach, 2007), Intensive Interaction (Hewett, Barber, Firth, & Harrison, 2012), Video Interaction Guidance (VIG) (Kennedy, Landor, & Todd, 2011) and Integrated Play Groups (Wolfberg, 2003) have made similar points. Therefore, an interactive style with an adult guiding the play of children with autism and intellectual disabilities could include:

- keep language simple and describe what the child is doing in order to maintain their attention and provide some meaningful vocabulary
- pause in order to observe the child's play and build on it by responding to the latter's initiatives
- imitate the child's play as imitation can be a meaningful way of joining in their play and following their lead and once accepted in their play try to teach them something new (e.g. extend the routine)

- use of a range of non-verbal cues (e.g. pointing, symbols) to support understanding
- create play opportunities throughout their day to give the child the chance to practice a skill which they have difficulty in
- create play opportunities with familiar peers and facilitate peer play.

Conclusions

It is particularly important for children with autism to participate in playful environments, to be encouraged to play, to practice playful activities, and, through interaction with adults and peers, to "unfold" play itself. It is up to the adults, both educators and parents, to design the appropriate environments which will address the individual needs of children with autism in relation to play (Wall, 2010), by incorporating interactive play with themselves and peers (siblings and other children) in their play activity repertoire, as well as by providing guidance which leads to higher levels of play. It is equally important for adults to be very much aware of the extent to which their interactive style facilitates or impedes the development of play skills in children with autism and make adjustments accordingly. Such initiatives are of primary importance when we take into account the research findings which suggest that, ultimately, the difficulties in symbolic play encountered by children with autism are not linked to the ability for play, but rather with to performance of play (Blanc, Adrien, Roux & Barthélémy, 2005). It is also important to consider that some children with autism prefer to play alone and may find play with other children uncomfortable or even distressing and this should be respected (Calder, Hill & Pellicano, 2012) when evaluating and addressing the individual developmental educational needs of a child with autism.

Of great relevance here are also the notions of hapiness and well-being which have not been researched adequately in the field of autism (Vermeulen, 2014). Given that quality of life among adults with autism has been found to correlate with having regular and meaningful recreational activities

(Billstedt, Gillberg, & Gillberg, 2011), more opportunities should be given to access play in all ages esepcially when autism co-exisists with intellectual disabilties. In cases like this, play and having fun should not be sacrificed in the name of age appropriateness (Imray & Hadfield, 2016) and the needs of individuals should be considered according to where they are at the developmental ladder as opposed to their chronological age (Hewett et al, 2012). This is in accordance with Theodorou and Nind's (2010) point that 'normative benchmarks' are likely to be challenged when it comes to play and autism. However, more research needs to be done as the population of children with autism and intellectual disabilities has been largely neglected in the broader autism research (Kasari & Smith, 2013; Pellicano, Dinsmore, & Charman, 2014) including play.

Through social interaction and peer play, children develop empathy, social understanding, and tolerance towards different forms of communication and play, while, simultaneously, play itself is enriched by each child's personal and socio-cultural experiences (Wolfberg, 2003). By actively participating in a "play culture", children with autism do not become isolated and acquire access to play and peer play. Lack of access to and support for peer play is most probably the reason behind the image of the socially-isolated child with autism, rather than the child's own difficulties in developing peer play (Wolfberg & Schuler, 2006). The existence of a framework -whether in the family, the school, or the community-which enables a "play culture" and a "peer culture", can contribute significantly to the improvement of social interaction and communication, the development of creativity, imagination and symbolic thought, flexibility of thought and fun and happiness in children with autism.

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